

FAST-RESPONSE CURRENT LIMITING

Abstract

An amplifier (10") has a first amplifier stage (14) for producing a control current (I_x) in response to an input voltage. A second amplifier stage (16) has first (46) and second (38) transistors. The first transistor (46) is coupled to receive the control current (I_x) and is operable to produce a control voltage. The second transistor (38) is coupled to receive the control voltage and operable to produce an output current. A nonlinear resistive element (50) is coupled to the first transistor (46) to add a nonlinear function of the control current (I_x) to the control voltage. The nonlinear resistive element (50) may include a third transistor connected between the first transistor (46) and a reference potential, operable to receive the control current (I_x) and to generate the nonlinear function thereof.